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cont.

Power to Semiconductor Package" by inventors Kristopher Frutschy, Chee-Yee Chung, and Bob Sankman filed on a same date as the filing of this patent application.--

IN THE CLAIMS:

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Please cancel claims 17, 33 and 49 without prejudice or disclaimer.

Please amend claims 1, 6, 13, 18, 22, 34, 38, 50, 55 and 61 as follows:

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1. (Twice Amended) An Integrated Heat Spreader / Integrated Stiffener (IHS/IS) mountable to provide stiffening support to a substrate, the heat spreader/integrated stiffener including a side wall portion to mount transverse to the substrate and a stiffener extension to extend from the side wall portion toward a center of the heat spreader/integrated stiffener.

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6. (Twice Amended) An IHS/IS as claimed in claim 1, the stiffener extension comprising having an integrated stiffener extension which is substantially planar for mounting to a substantially planar die-side surface of the substrate.

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13. (Twice Amended) An IHS/IS as claimed in claim 1, the IHS/IS being electrically connected to the substrate.

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18. (Twice Amended) A carrier package comprising:
one of a thin-core and coreless substrate of an IC-PCB; and

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an IHS/IS mounted to provide stiffening support to said substrate, the IHS/IS including a side wall portion to mount transverse to the substrate and a stiffener extension to extend from the side wall portion toward a center of the IHS/IS.

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22. (Twice Amended) A carrier package as claimed in claim 18, the stiffener extension comprising an integrated stiffener extension which is substantially planar and mounted to a substantially planar die-side surface of the substrate.

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34. (Twice Amended) A packaged integrated circuit (IC) comprising:
an IC-PCB carrier package including one of a thin-core and coreless substrate; and
an IHS/IS mounted to provide stiffening support to said substrate, the IHS/IS including a side wall portion to mount transverse to the substrate and a stiffener extension to extend from the side wall portion toward a center of the IHS/IS.

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38. (Twice Amended) A packaged IC as claimed in claim 34, the stiffener extension comprising an integrated stiffener extension which is substantially planar and mounted to a substantially planar die-side major planar surface of the substrate.

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50. (Amended) A heat spreader/stiffener device comprising a thermally conductive member having a side wall portion and a stiffener portion mountable to one of a thin-core and coreless substrate so as to increase a stiffness thereof, the stiffener portion to extend from the side wall portion toward a center of the heat

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spreader/stiffener device, the heat spreader/stiffener device having a thermal path thermally connectable to the substrate.

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55. (Amended) An integrated circuit (IC) carrier package comprising:
an IC;
at least one of a thin-core and coreless substrate; and
a heat spreader/stiffener device with a thermally conductive member having a side wall portion and a stiffener portion mounted to the substrate so as to increase the substrate stiffness, the stiffener portion to extend from the side wall portion toward a center of the heat spreader/stiffener device, the heat spreader/stiffener device having a thermal path thermally connected to the substrate.

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61. (Amended) An electronic system comprising:
an IC carrier package including an IC;
at least one of a thin-core and coreless substrate; and
a heat spreader/stiffener device with a thermally conductive member having a side wall portion and stiffener portion mounted to the substrate so as to increase the substrate stiffness, the stiffener portion to extend from said side wall portion toward a center of the heat spreader/stiffener device, the heat spreader/stiffener device having a thermal path thermally connected to the substrate.

Please add new claims 63-65 as follows:

--63. An IHS/IS as claimed in claim 1, the stiffener extension extending from a lip of the substrate towards a center of the substrate.--

B12 --64. A carrier package as claimed in claim 18, the stiffener extension extending from a lip of the substrate towards a center of the substrate.--

--65. An electronic system as claimed in claim 61, the stiffener extension extending from a lip of the substrate towards a center of the substrate.--
